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NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

MBA PROFESSIONAL REPORT

Natural Disasters – A Military Option For Increased Responsiveness

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By: **Homero Ramos,**
Michael Pereira

June 2006

Advisors: **Deborah Gibbons,**
E. Cory Yoder

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The purpose of this MBA project is to study the feasibility of a military fast reaction team that would provide emergency services in a "declared" domestic national disaster. We believe that initial responses might be coordinated and implemented more effectively by a specially trained military team. The response time period being considered would be immediately preceding a forthcoming "declared" disaster, during the actual disaster, and immediately following the disaster for a short period of time until longer term assistance can be established. After a disaster has been declared either at the federal, state or local level, a military fast reaction team consisting of specialized military personnel could descend upon the affected area to undertake life critical issues.

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NATURAL DISASTER – A MILITARY OPTION FOR INCREASED RESPONSIVENESS

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NATURAL DISASTER – A MILITARY OPTION FOR INCREASED RESPONSIVENESS

ABSTRACT

The purpose of this MBA project is to study the feasibility of a military fast reaction team that would provide emergency services in a "declared" domestic national disaster. We believe that initial responses might be coordinated and implemented more effectively by a specially trained military team. The response time period being considered would be immediately preceding a forthcoming "declared" disaster, during the actual disaster, and immediately following the disaster for a short period of time until longer term assistance can be established. After a disaster has been declared either at the federal, state or local level, a military fast reaction team consisting of specialized military personnel could descend upon the affected area to undertake life critical issues.

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I. INTRODUCTION

A. BACKGROUND

In the light of the Hurricane Katrina disaster, emergency response shortfalls were illuminated that showed a gap in emergency response time. We feel that this gap can best be filled by current military competencies the Department of Defense (DoD) has organic assets that can readily be applied to domestic disaster mitigation. Initial responses might be coordinated and implemented more effectively by a specially trained military team that integrates logistics, humanitarian relief, and contingency contracting functions. After a disaster has been declared either at the federal, state or local level, a military fast reaction team consisting of specialized military personnel could descend upon the affected area to undertake life critical and some contractual sustainable issues. The ability of the Department of Defense to aid disaster authorities could help to limit loss of life, provide basic life support and maintain security in the affected region. Included in the fast reaction response team will be contracting officers who will specialize in preplanned emergency contracts designed to aid in the emergency effort. An analysis of the scope of emergency contracting with regard to basic life support issues and security will be examined. Future disaster responses may benefit directly from development of a military response team that is assembled in light of lessons learned from the Katrina investigations.

B. PURPOSE AND BENEFITS OF RESEARCH

This project is meant to study the feasibility of a military fast reaction team that would provide emergency services in a "declared" domestic national disaster. Specifically, we will focus on initial responses to needs for relief and rescue that might be coordinated and implemented by a specially trained military team in the days following a disaster. The goal of our research is to produce a practical model for development of an effective military fast-reaction disaster response team. We intend to identify necessary

capabilities, examine how the team might fit within the current emergency response and contracting structures, and make recommendations for emergency team-building.

Through our research we hope to determine how a military fast reaction team may be (1) prepared for a host of possible contingencies and (2) able to give quick sustainable life saving assistance until long term emergency services and reconstruction can begin. We intend to develop the conceptual framework for a new disaster relief model. The model will separate disaster relief functions into mitigation, relief/rescue and recovery. The military fast reaction disaster response team will concentrate in the relief/rescue phase. Our model will also include a contracting vehicle that will flow through all three phases of the disaster relief model aimed at ensuring prudent spending of public funds.

C. SCOPE

The project is designed to look at the time frame immediately preceding a natural disaster (if applicable) and the response necessary in the hours after a disaster has happened. We explore the possibility of a model for a first response military organization that utilizes the core competencies of personnel with skills ranging from medical, engineering and contracting disciplines. Although we will consider all aspects of the organization, we will focus our field research and feasibility analysis on contracting aspects of the emergency response. The intent of the organization is such that with short notice the organization can respond until longer term dedicated response and reconstruction can be established.

D. METHODOLOGY

The information utilized in this study was obtained through a thorough analysis of current literature and periodicals, journal articles, and organizational experiences with regard to disaster planning. Interviews were conducted with experienced contracting officers and with people who have been early responders to emergencies, including both government and non-government organizations. Finally, we compared projected costs related to preplanning with costs incurred in recent emergency contracting situations.

E. RESEARCH QUESTIONS AND APPLICATIONS

How could consolidation of the military into national disaster response planning add increased responsiveness while maintaining financial accountability throughout the disaster contracting process? What core competencies does the DoD have that could sustain basic life support with very little notice? What assets and specially trained personnel does the DoD have that could be utilized to provide stabilizing security if needed? Answers to these questions may benefit the DoD acquisition community policy makers, Federal Emergency Management planners and state and local planners looking to utilize a military capability in order to mitigate disaster response. The lessons learned from this research may be utilized by acquisition personnel primarily concerned with disaster response within the DoD and other necessary Federal agencies.

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II. HISTORY OF FEDERAL INVOLVEMENT IN NATURAL DISASTERS

A. FEDERAL HISTORY

Disaster response in the United States is primarily handled by State and Local governments. The role of the Federal Government has primarily been relegated to the role of supporting participant at the request of local and state authorities (Townsend, 2006). This relationship between the States and Federal government has its roots in the general idea that the Federal Government exists to do that which individuals find no incentive to do on their own or as a group of volunteers (Townsend, 2006). Services offered by the government are considered to be public goods[1] (Samuelson, 1954) and are meant to be available to all who need them with no exclusions.

In the past 200 years the role of the Federal Government has evolved from the first instance when intervention was taken in Portsmouth, New Hampshire in 1803 (Drabek & Hoetmer, 1991). In response to a devastating urban fire, Congress approved the use of Federal resources to assist the disaster recovery (Systems to meet people needs in Natural and Manmade Disasters, p.10). Subsequently, between 1803 and 1950, the Federal Government assisted in over 100 disasters, making Federal money available to those affected areas (Drabek & Hoetmer, 1991). These interactions between the Federal Government and State and local authorities were administered in an ad hoc manner without the use of any kind of federal response plan (Drabek & Hoetmer, 1991). During this time the Red Cross was chartered by congress as a charitable organization to provide disaster relief support during crises. The value of the Red Cross was demonstrated just a year after its inception when they provided key relief assistance during the San Francisco Earthquake and Fire of 1906 (Williams, 2001).

The approach of the Federal Government became more proactive during the Great Depression when Congress bestowed upon the Bureau of Public Roads the authority to provide continuous grants to states for the repair of disaster damaged infrastructure. At

[1] An economic theory attributed to 20th century economist Paul Samuelson that states the consumption of a good is available to all who need it and the consumption of those goods does not diminish for other users.

the same time, they charged the Army Corp of Engineers with the task of mitigating flood related threats (Drabek & Hoetmer, 1991). These piecemeal legislative actions were later replaced by the first legislation pertaining to Federal Disaster Relief - The Civil Defense Act of 1950 (Federal Civil Defense Act of 1950).

Emphasizing that Federal disaster assistance was intended to supplement, not supersede, the resources of the States, local, and private organizations, President Truman issued Executive Order 10427 in 1952. This theme of supplementing state and local agencies has been carried forward through to 1972 when President Nixon issued his report, "New Approaches to Federal Disaster Preparedness and Assistance" (Townsend, 2006). Recent legislation also carries the theme of supplementing state and local organizations. The Stafford Act reinforces the principle that response efforts should first be utilized by State and local resources (Stafford, 2000).

B. NATIONAL INCIDENT MANAGEMENT SYSTEM

The National Incident Management System (NIMS) establishes standardized incident management protocols and procedures that all responders – Federal, State and local – should use to conduct the coordinated response actions (FEMA, 2006).

A central component of the NIMS is the Incident Command System (ICS), which was developed and refined over several years by officials at the Federal, State and local command levels and was successfully implemented throughout the United States prior to the implementation of the NIMS (National Incident Management System [NIMS], 2004). One of the areas covered by the ICS is the organization, structure, and size of the response force tailored to manage the incident. This system comprises five functional areas – Command, Planning, Operations, Logistics and Finance/Administration (NIMS, 2004). Requirements from the ICS include instituting a command system establishment from the onset of disaster mitigation operations. This is designed to ensure that a unified commander and coordination of multi-agency and multi-jurisdictional responses are provided. While most incident response is conducted at the local level, ICS is established such that the command function can operate at the lowest level of coordinated response.

Within the NIMS, the framework for interoperability and compatibility is based on a balance of flexibility and standardization that can be found at any level of incident response. The flexibility that the NIMS provide is a constant framework that is transparent across all levels of government regardless of their size, location and complexity of scale. This flexibility is applicable across all phases of incident management: prevention, preparedness, response, recovery and mitigation (NIMS, 2004). Standardization for the NIMS is provided through the Incident Command Structure, multi-organization command structure, and public information system, as well as through the various requirements for process and procedures that are designed to improve interoperability (NIMS, 2004).

C. DISASTER RESPONSE STRUCTURE

The United States Government realized after the September 11th attacks on the World Trade Center that additional resources were needed to adequately ensure effective coordination between Federal, State and local agencies. President Bush called for an initiative to build a national system for incident management and to integrate separate Federal response plans into a single incident management plan. In July 2002 the National Strategy for Homeland Security was issued.

The Homeland Security Act was signed into law on November 25th, 2002. (President Bush Signs Homeland Security Act, 2002) In February, 2003, President Bush issued Homeland Security Presidential Directive 5 (HSPD-5) in which the President specifically directed the Secretary of Homeland Security to create a comprehensive National Incident Management System (NIMS) and develop the National Response Plan (NRP). HSPD-5 also directed Federal departments and agencies to adopt the NIMS and use it in their individual incident management activities (HSPD-5). The NIMS and NRP were completed in 2004, and they form the foundation for the manner in which the Federal government organizes when responding to all disasters (Townsend, 2006).

D. FEMA HISTORY

The Federal Emergency Management Agency (FEMA) can trace its beginnings to the Congressional Act of 1803 (Williams, 2006) and has been in existence in some form for over 200 years. Federal Emergency Management in the United States has evolved through five different periods. These periods can be classified as the ad hoc period, which includes the time prior to the 1930's; the Piecemeal Approach; the Department of Housing and Urban Development (HUD) years; FEMA as an independent agency; and FEMA as a part of the Department of Homeland Defense (Williams, 2006).

During the ad hoc era more than 100 pieces of legislation were passed in order for the Federal government to be able to assist in disaster recovery (FEMA History, 2006). As events that required Federal assistance arose, independent legislation particular to the needs of that emergency were passed in order to ensure Federal assistance.

In the 1930's, a move toward Federalism gained in popularity. The Federal approach to problem solving was used when the Reconstruction Finance Corporation was granted the authority to make disaster loans for public buildings following an earthquake (Butkiewicz, 2006). This authority later spread to other disasters as well. Almost simultaneously, the Bureau of Public Roads was given the authority to provide funding for the nation's highways and bridges that were damaged due to natural disasters (FEMA History, 2006).

From 1960 to 1979, the Department of Housing and Urban Development (HUD) was made responsible for Federal disaster relief and recovery. Within HUD there existed the Federal Disaster Assistance Administration whose purpose was the mitigation of natural disasters. While HUD was responsible for disaster relief and recovery, there were still over 100 agencies involved in disaster relief (FEMA History, 2006).

Executive Order 12148 brought about the Federal Emergency Management Agency as an independent Agency in 1979. The order put FEMA in charge of coordinating all disaster relief efforts at the federal level. FEMA absorbed the Federal Insurance Administration, the National Fire Prevention and Control Administration, the National Weather Service Community Preparedness Program, the Federal Preparedness

Agency of the General Services Administration and the Federal Disaster Assistance Administration activities from HUD (FEMA History, 2006).

The most recent change to Federal emergency management came when FEMA was absorbed by the Department of Homeland Security in 2003. The primary role of the DHS is to coordinate among the different federal agencies how to deal with law enforcement, disaster preparedness and recovery, border protection and civil defense (FEMA History, 2006). As a part of the Department of Homeland Security (DHS), FEMA became part of Emergency Preparedness and Response Directorate. The DHS assumed operational control of nearly 180,000 personnel from portions of 22 departments, agencies and offices that were combined to constitute the newly created department (Department of Homeland Security Facts for March 1, 2003). Prior to its incorporation, FEMA was an autonomous entity that acted accordingly to its own mission and directives. After the absorption by DHS, FEMA's own mission now falls under the overarching umbrella of the DHS as outlined in their organizational structure. While the overall mission of DHS does encompass disaster mitigation and preparedness, this mission is combined with the missions of the other DHS directorates. These include the Transportation Security Administration (TSA), Customs and Border Protection, Immigrations and customs Enforcement (ICE), the Federal Law Enforcement Training Center, Citizenship and Immigration Services, the U.S. Coast Guard and the U.S. Secret Service. (Department Subcomponents and Agencies, 2006).

E. CURRENT DISASTER RESPONSE SYSTEM

The Federal Emergency Management Agency (FEMA) developed the Federal Response Plan (FRP) which is a Signed agreement among 27 Federal departments and agencies. It provides the tool by which coordination of Federal assistance and resources to supplement the efforts of State and local governments which may be overwhelmed by disaster or emergency (FEMA, CH4 Response). The goal of the FRP is to maximize available Federal resources in support of response and recovery actions taken by State and local emergency officials.

The current system relies upon the cooperation of several agencies including Federal, State, Local and Non-Governmental Organizations (NGO) to provide necessary services required for disaster mitigation (Townsend. 2006). The coordination and communication of these agencies has proven to be cumbersome in times of extreme emergencies, as witnessed in Hurricane Katrina, and can be supplanted by the DoD. The DoD's core competencies enable it to be seamlessly integrated into the FRP and provide overarching guidance in the time frame immediately preceding a natural disaster or the response necessary in the hours after a disaster has happened.

F. INTERNATIONAL APPROACH

Using the military for disaster response is becoming a world wide common practice. In an age where the man-made threat is increasing, it only makes more sense to utilize the capabilities developed to combat this threat for natural disasters as well. Human casualties and suffering cannot distinguish between man-made or natural disasters. The authors of the National Response Plan (NRP) and the National Incident Management System (NIMS) attempted to realize this when creating an 'all-hazard' approach to disaster response. However, an 'all-hazard' approach does not necessarily mean an all governmental agency response responsibility. As mentioned earlier, the NRP lists at least fifteen Emergency Support Functions each listing a primary agency in charge with additional supporting agencies. According to the Lessons Learned report on Hurricane Katrina, "a fragmented deployment system and lack of integrated command structure exacerbated communications and coordination issues during the initial response"(Sprengelmeyer, 2006).

On a world wide scale, many Defense Ministries are putting all-hazard rapid response high on lists of priorities. The European Union's (EU) ability to respond rapidly was tested during the tsunami disaster of Thailand and Indonesia. The EU has been in the process of building a sixty thousand strong rapid reaction force mainly designed for its peacekeeping mission since 2000. Included in this forces mission is the evacuation of civilians from regions hit by natural disasters (United Press International, 2000). Also within this force, the concept of a disaster relief squad is being investigated. The disaster

relief squad also referred to a civil crisis management force would consist of around 5000 experts identified beforehand that can be sent on very short notice to provide the first responses to natural disasters or other emergencies. A similar type of military force, with a blueprint emphasizing disaster relief skills rather than law enforcement and administration has been proposed by the European Commission (European Report, 2005).

The extent of a rapid reaction force to deal with natural catastrophes is not limited by individual countries. In 2004, France's President Jacques Chirac called on Europe and the United Nations to organize a humanitarian rapid reaction force to do just that. In his address, Chirac called for a UN force to deal with natural disaster as the (UN) Blue Helmets have done for peace (Agence France Presse English, 2004) More recently, Spain's Defense Minister Jose Antonio Alonso announced that his country will set up a 3000 strong emergency brigade to help cope with natural or man-made disasters (Comtex News Network, 2006) The intent of the brigade, which will be deployed across the nation, is to have a force with integrated response capabilities and access to engineering and medical equipment ready for quick utilization. Another example, of utilization of military forces for disaster response, closer to our border, is Canada. Canada has played a leading role in efforts to design a specialized military unit to respond to humanitarian emergencies. Focused on quick response, the Canadian Forces Disaster Assistance Response Team or DART was established in 1996. The team is made up of approximately 180 highly trained professionals including medical personnel, engineers, a transport and signals unit and an infantry platoon for security. DART capabilities include, world wide deployment within 48 hours, providing a field hospital, purifying water, and providing communication and logistics support for up to 40 days (Collenette, 1996). Created to help the victims of natural disasters and ultimately save lives of people in distress anywhere in Canada or the world, the Canadian approach of disaster planning and response should be analyzed in creating a new U.S. model.

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III. NATIONAL DISASTER PLAN REVISITED

A. NATIONAL RESPONSE PLAN

One of the newly created Department of Homeland Security (DHS) tasks was with the issuance of Homeland Security Presidential Directive -5 (HSPD-5) in which the President ordered the DHS to develop a National Response Plan. The plan was to align federal coordination structures, capabilities and resources into a unified all-discipline and all-hazard approach to domestic incident management. Designed for the prevention of, preparedness for, response to and recovery from terrorism, major natural disasters and other major emergencies the goal of the plan was to tie together a complete spectrum of incident management activities (National Response Plan, Dec 2004). The National Response Plan (NRP) theoretically incorporates the best practices from a wide variety of incident management disciplines both in the public and private sector, vastly improving coordination, communication, effectiveness and the efficiency of incident management. The NRP itself does not create any new authorities; it simply attempts to enhance incident management capabilities by unifying the incident management process into a single comprehensive framework for the management of domestic incidents (National Response Plan, Dec 2004).

1. BASE PLAN

The NRP is made up of the Base Plan, Emergency Support Functions (ESF) and Support Annexes.(National Response Plan, Dec 2004) The base plan describes the structure and processes of the National approach to domestic incident management and includes planning assumptions, roles and responsibilities, concept of operations, incident management actions and plan maintenance instructions. The meat of the NRP lies in the Emergency Support Functions (ESF). The ESF details the missions, policies, structures and responsibilities of federal agencies for coordinating resource and programmatic support during incident of national significance. The Support Annexes provide guidance

and describe the functional processes and administrative requirements necessary to ensure efficient and effective implementation of NRP objectives.

Without question, the Nation's ability to react and respond to domestic incidents changed dramatically after the events of September 11, 2001. The focus shifted from responding to natural disasters to reacting and responding to acts of terrorism. As a result, the NRP, which was defined as a "concerted national effort to prevent terrorist attacks within the United States; reduce Americas vulnerability to terrorism, major disasters, and other emergencies; and minimize the damage and recover from attacks, major disasters and other emergencies that occur" was developed (National Response Plan, Dec 2004 pg. 1). Achieving the objectives set forth by the DHS would most definitely require very bold steps and dramatic change to the way things had been done in the past. Predicated on a new National Incident Management System (NIMS), the NRP tries to rein many different competencies and specialties into an effective and efficient structure. It is basically a cradle to grave approach to incident management.

2. EMERGENCY SUPPORT FUNCTION

The NRP attempts to "establish a comprehensive, national, all-hazards approach to domestic incident management across a spectrum of activities including prevention, preparedness, response and recovery" by bringing together and then delegating out skill sets available in the federal government by Emergency Support Function (ESF) (National Response Plan, Dec 2004 pg 2). The NRP's systematic approach is reliant on the integration, coordination and communication of the applicable federal departments. In short, the federal department or agencies that make up the skill sets amounting to the Emergency Support Functions have to play well together for the NRP to be successful. Under normal circumstances and conditions there are no doubts that federal agencies can work effectively together, but can they do so under non-normal circumstances and conditions? Should incident management be a cradle to grave operation, or should the process be broken down into smaller more manageable tiers?

The NRP plan lists 15 different Emergency Support Functions ranging from transportation to external affairs (see Table 1 below). Each of the functions has an ESF coordinator and one or more primary and secondary support agencies. In theory, a large incident of national significance, large enough can require that all 15 ESF's be called to action, which in turn would require at least 15 ESF coordinators to interact with at least 15 or more other primary and secondary support agencies. Adding to the confusion is the utilization of the National Response Coordination Center (NRCC), the Regional Response Coordination Center (RRCC) were key regional players and are over seen by key National players (see Figure 2). In the event that military and National Guard troops were called to action, they too would fall under different commands. As mentioned in the White House's "lessons learned" report on Hurricane Katrina "a fragmented deployment system and lack of integrated command structure for both active-duty and National Guard forces exacerbated communications and coordination issues during the initial response." (Townsend, 2006).

Figure 1. Emergency Support Function (ESF) and Primary Agency Responsible[2]

Emergency Support Function	Primary Agency
ESF #1 – Transportation	Department of Transportation
ESF #2 – Communications	Department of Homeland Security
ESF #3 – Public Works and Engineering	DoD/US Army Corp of Engineers
ESF #4 – Firefighting	Department of Agriculture/Forest Service
ESF #5 – Emergency Management	Department of Homeland Security
ESF #6 – Mass Care, Housing, and Human Services	Department of Homeland Security
ESF #7 – Resource Support	General Services Administration
ESF #8 – Public Health and Medical Services	Department of Health and Human Services
ESF #9 – Urban Search and Rescue	Department of Homeland Security
ESF #10 – Oil and Hazardous Materials Response	Environmental Protection Agency
ESF #11 – Agriculture and Natural Resources ……	Department of Agriculture
ESF #12 – Energy	Department of Energy
ESF #13 – Public Safety and Security	Department of Homeland Security
ESF #14 – Long-Term Community Recovery and Mitigation.	Department of Homeland Security
ESF #15 – External Affairs	Department of Homeland Security

[2] This table was taken from the National Response Plan "Emergency Support Function (ESF) Annexes" p. ESF-i.

3. NATIONAL RESPONSE COORDINATION CENTER (NRCC)

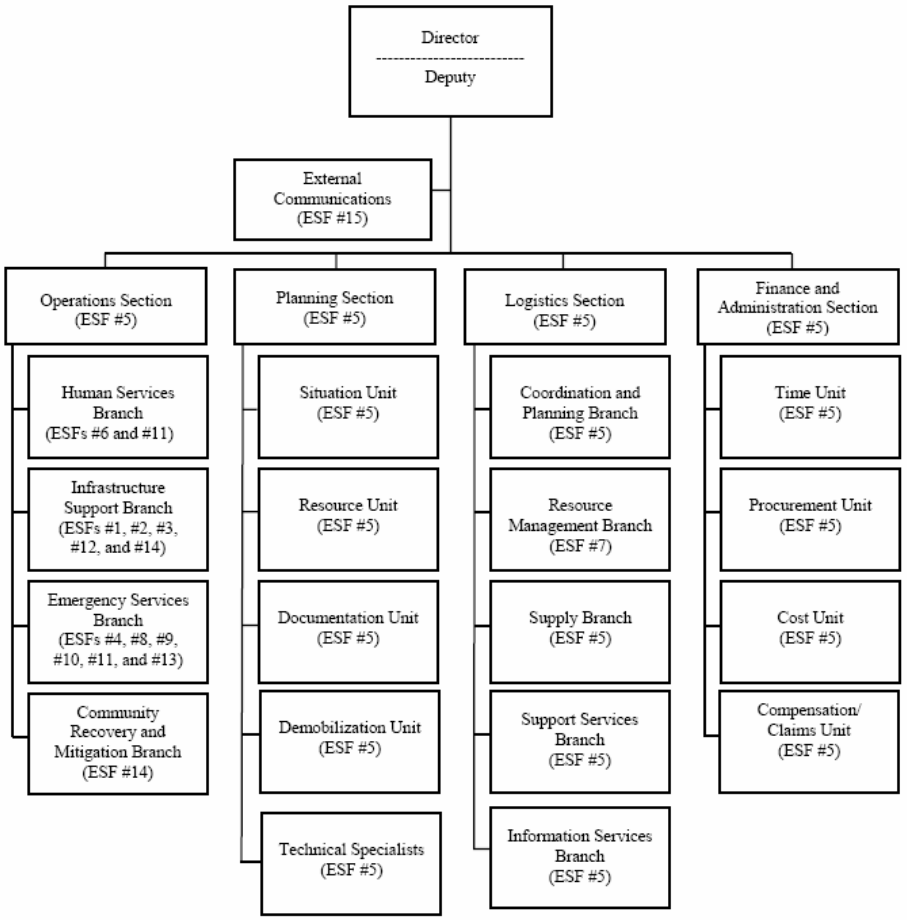
Currently, the National Response Coordination Center (NRCC) serves as the overall Federal response coordination for Incidents of National Significance (National Response Plan 2004). The NRCC monitors current and developing incidents of potential national interest and supports Regional Response Coordination Centers. Some examples of support the NRCC offers are;

- Providing management of field facilities, supplies, and equipment.
- Coordinating operational response and resource allocation planning with the appropriate Federal departments and agencies
- Collecting, evaluating, and disseminating information regarding the incident response and status of resources (National Response Plan, 2004).

4. REGIONAL RESPONSE COORDINATION CENTER (RRCC)

The role of the RRCC is to coordinate regional response efforts, establish federal policies, and implement federal programs with local emergency response agencies. During a emergency the RRCC establishes communications with the affects states emergency management agency, and coordinate the deployment of emergency response teams to local field locations in order to asses damage and issues initial damage assessments (National response Plan, 2004).

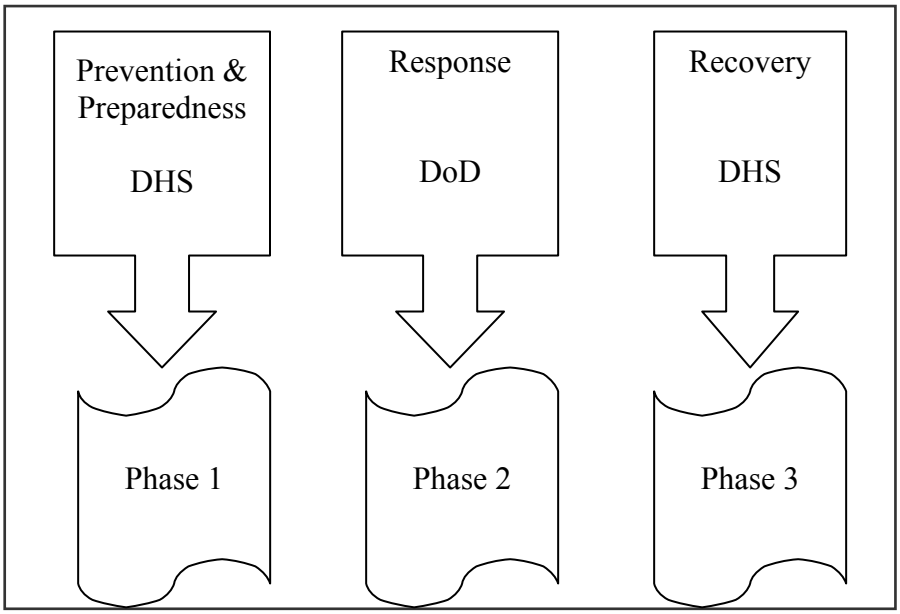
Figure 2. Sample organizational structure of the NRCC and RRCC[3]


Director
Deputy
External Communications (ESF #15)
Operations Section (ESF #5)
Planning Section (ESF #5)
Logistics Section (ESF #5)
Finance and Administration Section (ESF #5)
Human Services Branch (ESFs #6 and #11)
Infrastructure Support Branch (ESFs #1, #2, #3, #12, and #14)
Emergency Services Branch (ESFs #4, #8, #9, #10, #11, and #13)
Community Recovery and Mitigation Branch (ESF #14)
Situation Unit (ESF #5)
Resource Unit (ESF #5)
Documentation Unit (ESF #5)
Demobilization Unit (ESF #5)
Technical Specialists (ESF #5)
Coordination and Planning Branch (ESF #5)
Resource Management Branch (ESF #7)
Supply Branch (ESF #5)
Support Services Branch (ESF #5)
Information Services Branch (ESF #5)
Time Unit (ESF #5)
Procurement Unit (ESF #5)
Cost Unit (ESF #5)
Compensation/ Claims Unit (ESF #5)

This level of bureaucracy is sure to slow the process down significantly. The sheer size of the key players, representing key skill sets during a disaster situation, will breed inefficiency throughout the entire process. The authors propose the NRP model be broken down into separate phases of incident management thus breaking the cradle to grave operation into smaller more manageable operations (see Figure 3). The phases of the operation can be designed to mirror the activities listed by the NRP to include prevention, preparedness, response and recovery. Coordination can be more efficiently accomplished by designating a phase coordinator, vice assigning an ESF coordinator.

[3] This figure was taken from the National Response Plan "Emergency Support Function (ESF) Annexes" p. ESF-ii.

Figure 3. Proposed Three Phases of Incident Management



The phase coordinator can concentrate on specific ESF functions related to the particular phase. This will allow for better development of core phase competencies, improve inter-agency communications and increase efficiency by reducing the bureaucracy involved in the management of incidents. In addition, phase coordinators can take a capabilities approach to phase management vice an agency approach. This is to say that the phase coordinator can pull specific capabilities from other federal agencies vice having the NRP push entire agencies into the ESF. This would limit the bureaucracy to value-added functions.

B. THE RESPONSE PHASE

When dealing with disasters, whether natural or man made, the phase which attracts public attention more than any other is the response phase. A community could have exhausted its preventive measures and been as prepared as possible when a disaster strikes, but in the end the Federal government is expected to respond effectively. The importance of this phase is directly translated into the NRP, which could just as easily have been called the national prevention, preparedness, response and recovery plan. It is

in this phase where lives are on the line, and time is one of the biggest enemies. Decisions in this phase are very similar to the decisions faced by commanders on battlefields. The core function of the United States military is to apply military force in the service of the country's political goals and objectives. Without question the most hazardous, difficult and intense aspect of military application is war fighting. The inherent capabilities that evolved into the greatest, most sophisticated military force the world has known can be used in other types of operations and contingencies. Commanders on the ground, whether civilian or military, need to be able to conduct a complete battlefield analysis. In the case of a natural disaster, a disaster analysis needs to be conducted in order to determine and prioritize the use of available capabilities in an effort to save lives. This type of situation awareness analysis is what military officers specialize in throughout their careers. A community dependent on local first responders for rescue runs the risk they may be unable to apply available capabilities effectively, may be limited in capabilities, and may be victims of the very disaster they were depended on to assist. The difference between the response phase decisions and battlefield decisions is that the lives on the line during disaster responses are not those of soldiers but that of citizens. This proposal to have an all military force specialized in disaster response, whether or not the NRP is modified, makes perfect sense if a capabilities approach is taken in incident management. The Department of Defense already provides National Security. This service can be extended by utilizing the military for domestic disaster response operations for which they have at their disposal all the capabilities, assets and man power to support it.

Currently the Department of Defense (DOD) is a support agency for all 15 ESF functions. The U.S. Army Corps of Engineers (USACE) is the coordinator and primary agency for public works and engineering (National Response Plan, Dec 2004). The military has been very involved in disaster responses, from escorting airplanes on September 11 to providing medical care after hurricane Katrina (Townsend, 2006)). On a world wide scale, the military has been involved in rescue, relief, or humanitarian operations in just about every world wide disaster. After the Sept 11 incident, one thing is clear; the United States is not immune from terrorist's attacks at home. This new

threat, which is continually evolving, is going to force America to take bold steps in how it responds to disasters. If Miami, FL was under attack by country X, the military would be expected to respond to that attack. Why is that if Miami was under attack by hurricane Y, the military is not expected to respond until initial responders determine they lack resources and capabilities to effect a rescue operation or they realize the scope of the operation is too large? In either case, it is too late, and lives that could have been saved by a military first responder force are lost.

The concept of using the military for rescue and relief operations on US soil is not a new one. As mentioned earlier, DOD is a support agency for all 15 ESF's and has been involved in rescue operations in the past. The NRP also is taking an all-hazards approach to incident management, which is now including bio-hazard attacks which the military has been dealing with for years. The main difference that we propose is to have a military team trained to augment first responders. This would save critical time and increase the probability of saving additional lives. In a sense, this proposal calls for the creation of a Rescue and Relief ESF made up by the military to augment local first responders during the response phase of a disaster.

C. RESPONSE PHASE MODEL

Phase two of the proposed Incident Management Structure is broken down into three identifiable levels. Each level represents the level at which decisions are made with regard to the mitigation of disaster effects. It is the author's intent to mimic the hierarchical decision structure that typifies current military battlefield conditions. This structure exacerbates the training and experience that current military officials have fostered through years of intense training.

1. STRATEGIC LEVEL

This level of decision making provides the direction and structure for Phase Two of incident management. Under the direction of the DoD the response practice are determined and polices set forth with regard to the individual units and overall operation

of the military assets. DoD is further responsible for liaising with other government entities that are involved with ongoing disaster mitigation or preparation as well as any and all potential stakeholders in the disaster decision making process. The Strategic Level also houses those decision makers that determine which assets are required and made available as well coordinating those assets with other agencies as appropriate.

2. OPERATIONAL LEVEL

Within the Operational Level of Phase Two exist three primary decision making and acting bodies all still operating under the polices set forth by the Strategic Level of the Response Phase coordinator. Overall Emergency Management of the Response Phase of the disaster is now in the hands of DoD officials familiar with the Incident Management of domestic natural disasters, and how to best utilize organic assets, they do so in conjunction with the DHS, in particular FEMA. Also included in the Operational Level is the coordination of urban search and rescue operations in conjunction with the U.S. Coast Guard (USCG). While this action may be considered a tactical level decision it is the intent of the authors to highlight the fact that many rescues may be displaced from their residences for a considerable amount of time and will fall under the responsibility of FEMA for short to long term temporary housing. The primary role of the DOD in Phase two of the Incident Management is to provide short term disaster mitigation. DoD's competencies do not extend to long term refugee housing or extended periods of mass casualty maintenance and administration.

a. NGO Involvement

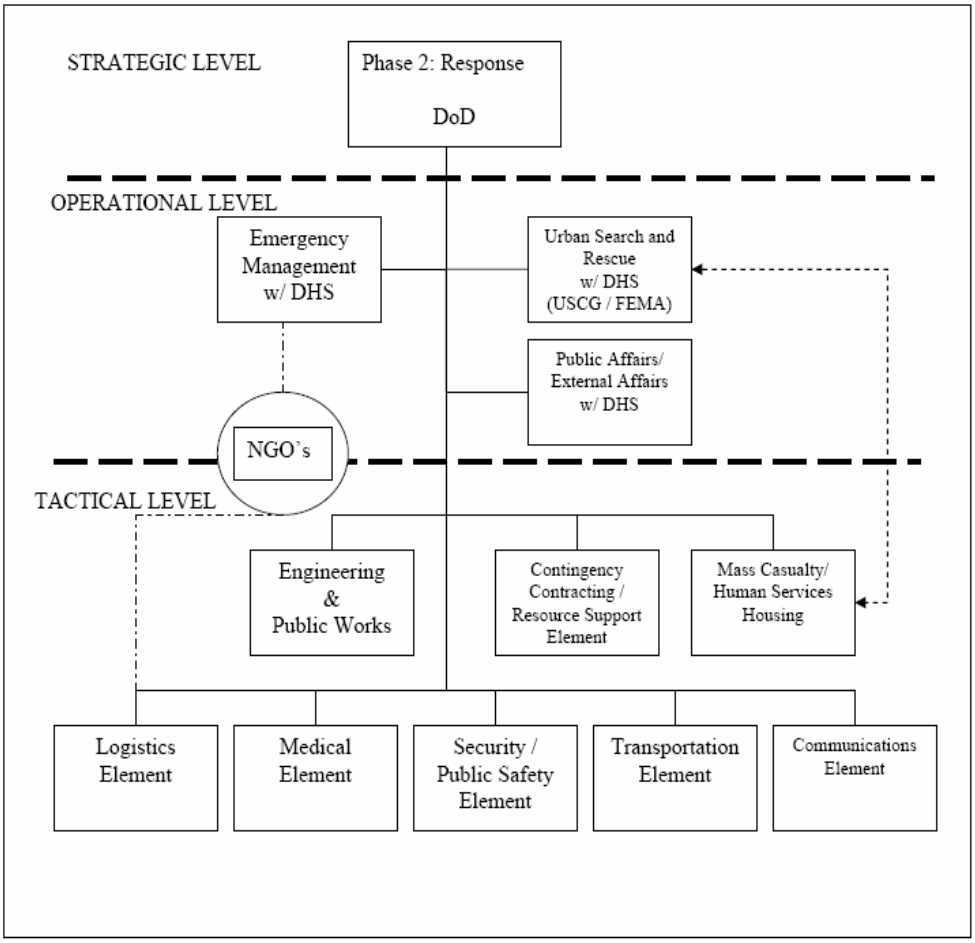
Non-Governmental Organizations are placed in a category between the Operational Level and the Tactical Level. The authors intend to show the relationship that NGO's have with the Incident Management system transcends all three phases and they are not indigenous to one single phase of operations. It is expected that in most, if not all, cases NGO's will already be operating in the affected area prior to the arrival of DoD organic assets. In many cases DoD assets will merely be supplementing efforts already underway by organizations entrenched in the effected area.

The role of NGO's in disaster relief is an area of study outside the scope of this project and provides additional areas for further research. It is the intent of the authors to recognize that NGO's play a vital role through the entire spectrum of disaster prevention, response, and recovery. As far as the military model is concerned, NGO's will provided the stability required to transition from phase two to phase three.

3. TACTICAL LEVEL

The Tactical Level of Phase Two is comprised of individual on scene decision makers that are granted the autonomous authority to make decisions concerning their respective duties within the scope of guidance set forth by the DoD policy makers in the Strategy Level of disaster response. As seen in figure 4 this level is made up of Engineering and Public Works, Contingency Contracting Officers, Logisticians, Medical Element, Security and Public safety, Transportation, Communication, and Mass Casualty / Human Services management Housing. The Human Services element will continue to work closely with DoD and DHS largely because the long term housing of displaced refugees is not a key competency of the DoD and is not part of short term disaster mitigation.

Figure 4. Proposed DoD Phase 2 Response Model



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IV. THE RESPONSE MODEL

A. THE DEPARTMENT OF DEFENSE RESPONSE PHASE FRAMEWORK

In keeping with the federalist form of government, intervention concerning natural disaster assistance should continue to be relegated to the local government affected by the area. The Federal Government should continue to be relegated to the role of supporting actor in most natural disaster situations (Townsend, 2006). As with any emergency, the initial response begins with the efforts of the individual citizen. Individuals who anticipate being directly in harms way or find themselves in peril should take immediate means to do whatever possible to protect self, property and fellow citizens.

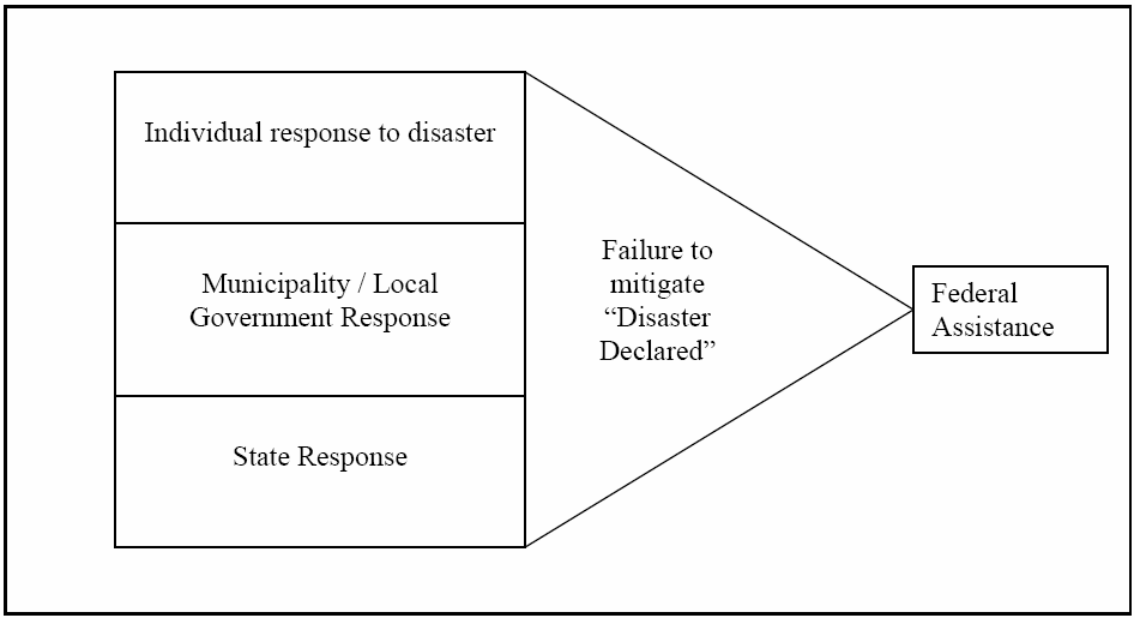
Most emergencies occur at the local municipal level and are routinely handled through the use of local resources and emergency service personnel to include volunteers from the local community. In the event of an emergency, local police, fire, emergency health services and public works personnel will normally be the first to respond (Townsend, 2006). In situations such as those where a disaster has not been "declared" and no immediate continued threat to lives or property are expected, there is no need to institute emergency procedures beyond what local planners and Non-Governmental Organizations (NGO), such as the Red Cross or faith based organizations, have prepared. Under the current plan, no ESF would be activated. Likewise our proposed military ESF would not have to be activated either.

1. Emergency Declaration Framework

The escalated response to a disaster either anticipated or after the fact, would still not be available until after the response has been formally requested in the form of a declared disaster in the same manner in which it currently is handled (NRP). Once Federal assistance is requested, resource determination should be considered based on the following guidelines (See figure 5).

- Individual cannot respond to the disaster and is not able to effectively protect self, property or aid in the assistance of others.
- The local government is unable to deal effectively with the emergency and assistance from the state in the form of emergency resource provisions and personnel are requested.
- State resources are ineffective in mitigating the effects of the disaster and state intervention is unable to curtail the effects of the disaster.

Figure 5. Three Responses Prior to Federal Assistance



2. Federal Assistance

Depending on the scale of the emergency the Federal Government may be authorized to deploy a Department of Defense Disaster Response Team (DRT). Among many of the core competencies that the department of defense possesses are attributes that lend themselves to effectively mitigating the effects of a natural disaster. The move from a hostile environment in which the DoD utilizes these assets and continually refines

and hones their skill to an environment which is either preparing for an impending disaster or cleaning up after one can be transparent.

The Department of Defense is particularly capable of providing superior logistics, transportation, medical care, information technology / communications, contingency contracting / financial accountability, and command and control to the battlefield so it would be a natural assumption by those who are familiar with DoD assets and capabilities to apply them to domestic natural disaster response.

The role of the Department of Defense in natural disaster response would be to protect people, property and if possible the environment from the harmful effects of a natural disaster. Furthermore, the DoD would provide leadership, command and control and improve the communications between all responding parties engaged in response actions within the effected area. Finally, the DoD would work closely with disaster prevention officials at the federal level to ensure readiness and interoperability in the event phase two operations are required.

a. Inter-Agency & Inter-Operability

Emergency planning is most effective when plans, responsibilities, resources and expectations from all participants at the local, state and federal level are coordinated and co-operatively planned. This co-operation extends to the areas of training, exercising capabilities, information exchange, public awareness, financial stewardship and responsibility. When all agencies understand the scope of their duties and responsibilities the process of mitigating the effects of a natural disaster can be effectively dealt with in the most efficient and financially prudent manner.

b. DoD Response Phase Preparedness Training

DoD should promote emergency planning and coordination through training and realistic scenario rehearsals with the DHS and appropriate local and state authorities in areas that are most likely to require the services of phase two intervention. Realistic training would also be required of all the DRT units that would be called upon to administer aid during the response phase including the necessary financial assistance and contingency contracting elements. Contracting officers would be required to monitor

and administer contracts that are in place in the event of activation. This would ensure that life sustaining contractual elements such as emergency water provisions, housing, and sanitary facilities are in place and mobile within short pre-determined time are ready. These types of training scenarios are conducted on continuing bases. One example is exercise 'Ardent Sentry' where the U. S. Northern Command (NORTHCOM) is participating with the Canadian and National Guard and reserve force from five U.S. States. The goal is to give these players an opportunity to sharpen their ability to respond quickly and in a coordinated way to national crises. In this exercise, NORTHCOM "is playing a supporting role to first responders during the exercise, as spelled out in the National Response Plan" (Mills, 2006).

3. Disaster Response Team (DRT)

The Disaster Response Team (DRT) would be a part of the Department of Defense under the command of NORTHCOM that would meet the requirement for domestic disaster mitigation. The activation of the DRT would be formalized by the order of the Secretary of Defense after a disaster has been officially declared or by order of the President of the United States. The DRT is not a full time dedicated military unit, rather different units on high alert and well trained, that are deployable and mobile on very short notice. The primary time frame of the Response Phase is immediately preceding a natural disaster, if known, or immediately following the disaster. Since time is a critical factor in the Response Phase, the DoD assets that would be called upon have to be located nearby the affected region or be able to be moved to the affected area on very short notice which is consistent with current DoD unified command procedures. The role of the DRT would be to provide the following:

- Rapid assistance to affected areas in accordance with the National Response Plan under guidance from military leaders who assume control during the Response Phase of a disaster.

- Prevent the onset of any secondary effects of the disaster. This may include, but is not limited to, the utilization of engineering personnel, security personnel or mobile medical assistance personnel.
- Ensure time for long term emergency service personnel to facilitate long term recovery and begin the Recovery Phase of the Natural Disaster Plan.
- Provide command and control infrastructure which will allow for the effective communication between the DoD and local emergency services trying attending to emergency needs in the affected area.
- The production of drinking water if needed. This can be done through the use of assets within the Army or by using Navy vessels located off shore if available.
- Primary emergency medical care. Through the use of experienced Army Medical personnel or either of the Navy hospital ships.
- In the event of a Bio-hazard disaster effectively quarantine the area and execute a controlled evacuation with close coordination with the Center for Disease Control (CDC).

4. Immediate Requirements for Response Phase Two

When immediate conditions exist that may result in a domestic emergency, action may be required that does not have time to be cleared through the usual chain of command and control. In these situations local military commanders are encouraged to exercise autonomy and make decisions pertinent to immediate conditions and needs. This method of thinking and decision making is integral to the success of combat operations and is a core competency of the military decision making process as well as crucial part of the phase two response system. Having a cadre of leaders who have developed an autonomous decision making process will facilitate faster reaction times and greater efficiencies of utilized and deployed assets in response to imminent emergency needs.

Any local commander in a position to affect an immediate response may make a decision concerning, but not limited to the following:

- Rescue, evacuation, medical capabilities, and decisions regarding public health.
- Restoration of emergency services, such as the disposition of potable water, fire fighting assets, communications and transportation.
- The clearing of debris, rubble or any other danger perceived to the restoration of emergency services or the disruption of emergency service personnel.
- Recovery, identification, registration and disposition of the dead.
- Transportation and movement of control of assets, evacuees, and emergency service personnel.
- Establishing security for the public good, essential supplies and materials.
- Damage assessment, hazardous material containment and assistance.
- Interim emergency communications.

Operational commanders are accountable for a wide range of activities that may include the monitoring of civil situations within their areas of responsibility. Many leaders may need to take appropriate action based on any number of unforeseen factors and act according to their authority.

The DoD DRT is especially capable of providing logistics, transportation, information gathering, and communications support on short notice that can be used to compensate for destroyed or unusable infrastructure that has been handicapped by the disaster. These stop-gap competencies that DoD brings with them are well suited for short duration mitigation until longer term temporary replacements or quick rebuilding can take place. Local commanders will have the autonomous decision making authority to determine weaknesses in the infrastructure and prioritize repairs in order to bring life critical services back online to service the emergency responders as well as the local populous unable or unwilling to relocate.

V. RECOMMENDATIONS

A. CREATION OF A MILITARY EMERGENCY SUPPORT FUNCTION

The Department of Homeland Security in close coordination with the Department of Defense should create a military emergency support function that is separate from the current NRP structure. This ESF should focus only on the response phase of a natural or man-made disaster. This would give emergency decision makers the option of activating the current NRP functions or for disasters of greater extent activating the military function. The military would act as a resource that may alleviate suffering in certain circumstances such as hurricane Katrina. To be successful, emergency planners would need to conduct an early assessment of the nature and extent of the disaster and the type of aid required. The role of the NGO's needs to be included in the military ESF. In most cases donors provide disaster assistance through these civilian organizations. The experience, cost-effectiveness, reliability and ability to connect relief to development are superior to the military's since disaster relief is not the raison d'etre of the military (Humanitarian Operations and Disaster Relief Operations, 2005).

B. CREATION OF DISASTER RESPONSE TEAM (DRT)

The U.S. Northern Command (NORTHCOM) whose mission is Homeland Defense should develop and train a Disaster Response Team (DRT) in accordance with the National Response Plan including a military ESF. NORTHCOM should focus its disaster relief involvement on the necessity for speed of reaction, proximity of suitable resources to the disaster area and the scale of effort or specialist skills to deal with the consequences of the disaster (Humanitarian Operations and Disaster Relief Operations, 2005). Training for military commanders should focus on unity of effort and response phase functions. The response phase should be broken down into three stages. Stage one is the immediate life saving stage focusing on assessment, search and rescue, medical aid, delivery of water and emergency shelter. Stabilization is stage two and should concentrate on life preserving activities such as the delivery of food and water, the

development of local capacity, sanitation and security and the construction of emergency shelters if needed (Humanitarian Operations and Disaster Relief Operations, 2005). Stage three is a transition or exit stage which requires close coordination with Recovery Phase officials and NGO's. Military commanders and recovery phase officials need to determine if the disaster area is stable enough to transition into the recovery phase. NGO participation throughout the three phases of the disaster response model and the three stages of the response phase is critical since they are key players in both the operational and tactical levels of disaster response. NORTHCOM would also need to maintain climatic and geological situational awareness in addition to defense focused.

VI. CONCLUSION

The post 9/11 environment which added the threat of unconventional disasters, terrorist action, to conventional natural disasters has placed a greater emphasis on expanding the military's' role in responding to this threat. As a result the U.S. Northern Command was established with the mission to safe guard the homeland. According the Economist Intelligence Unit, "a successful relief response is often run with military precision and discipline" (The Economist Intelligence Unit, 2005). The training and operational experience of military commanders makes them ideal for the confused nature of any disaster. When compared to civilian agencies, the military stands out for its superb organizational skills, and its ability to prepare and execute meticulous plans. (Farrell, 2005). According to Assistant Secretary of Defense for Homeland Defense Paul McHale, "there is no other agency of the United States government that has the ability to marshal such resources and deploy them as quickly as the as the Department of Defense during a period in which thousands of American lives may be at risk (Farrell, 2005). Military not the only solution to gaps in disaster response

In the aftermath of Hurricane Katrina, many civilian authorities have come to terms with a military option in disaster response. The U.S. Conference of Mayors released a position paper endorsing the idea stating "Hurricanes Katrina and Rita have given us reason to re-evaluate the paradigm of viewing the military as a resource of last resort" (Magnuson, 2005). The Department of Defense has also realized its new role and as demonstrated in the Quadrennial Defense Review (QDR) is ready to adapt. As stated in the QDR, "in order to response effectively to catastrophic events, the Department will provide U.S. NORTCOM with authority to stage forces and equipment domestically prior to potential incidents when possible" (Quadrennial Defense Review, 2006). Even Michael Chertoff, the Homeland Security Secretary concedes that recent history requires officials to "break the mold" in disaster response. Catastrophic events by their nature overwhelm emergency agencies' ability to respond, communicate and coordinate. Operating under these same circumstances is what distinguishes the United States Armed Forces as the best in the world. The lessons learned over the last decade, which included

the worst man made and natural disasters in the history of the United States have given us the tools to “break the mold” and develop a more user friendly disaster relief model.

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